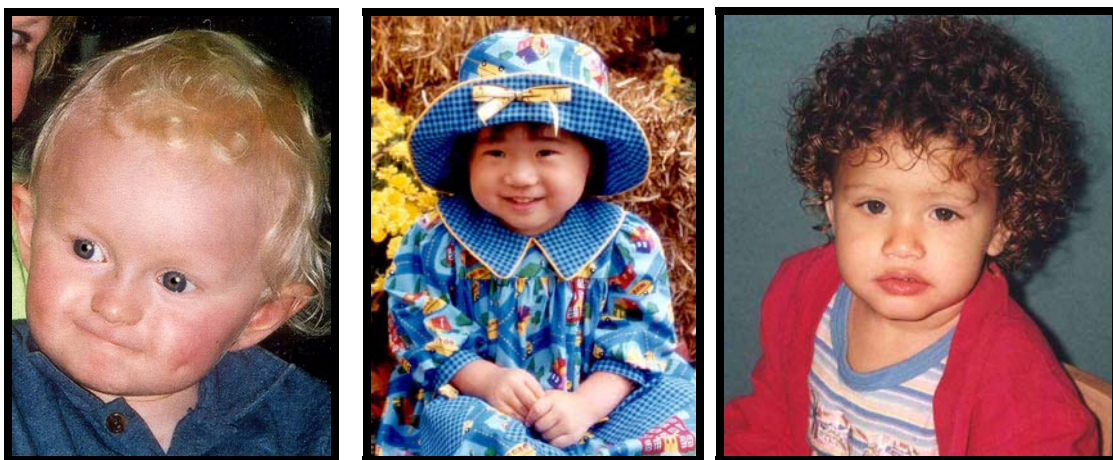




*W*elcome to Early Intervention Service Coordination in Tennessee

Congratulations on your decision to become an early intervention service coordinator. Partnering with families of infants and toddlers with special needs requires full commitment, lots of energy, precise organization, a positive outlook, and flexibility. Your duties are many, your travels unique, and the rewards are plentiful. You will learn more than you can begin to imagine, and you will make a difference in the life of a family and a very special child as you share in their hope. Good luck on your journey.



Share What You Do Well



Participant's name _____ 1.2



The Guiding Principle of TEIS

The guiding principle of **TEIS** is family first. The needs of the child and family are the first consideration. Best practice dictates the need for a continuum of early intervention services that provides both quality and appropriate options to the family. Through this continuum, an individualized plan of services can be tailored to the needs, wishes, and priorities of the family to support the development of their young child.

The Mission Statement of TEIS

The mission of **TEIS** includes:

- The empowerment of families in which there is an infant or toddler, ages birth to three years, with a known disability or a condition that has a high probability of resulting in developmental delays;
- The promotion and coordination of a comprehensive system of early intervention services to meet the needs of all eligible children and their families; and
- The development and implementation of strategies and procedures that ensure families and their children a smooth transition into, within, and out of early intervention services.

Accomplishing the Mission

TEIS accomplishes its mission through:

Increasing awareness among Tennessee's citizens of the value in early intervention services for infants and toddlers with disabilities;

Providing resource information and appropriate referrals regarding basic services to families and professionals;

Supporting families in the ongoing process of finding, accessing, and coordinating early intervention services;

Fostering coordination and communication among service providers on behalf of families;

Assisting families in the process of planning for and accomplishing transitions between service settings;

Operating a statewide network of nine district level "points of entry" and a statewide toll-free telephone number to assist families and to defray costs in accessing TEIS;

Filling service gaps to meet the Individualized Family Service Plan (IFSP) requirements; and

Developing a fully functioning statewide system of early intervention services for infants and toddlers and their families in natural settings that respects families' individual lifestyles.

Tomorrow's Success Begins Today

Call 1-800-852-7157



What is Early Intervention?

Early intervention applies to children of school age or younger who are discovered to have or be at risk of developing a handicapping condition or other special need that may affect their development. Early intervention consists of the provision of services such children and their families need for the purpose of lessening the effects of the condition. Early intervention can be remedial or preventive in nature--remediating existing developmental problems or preventing their occurrence.

Early intervention may focus on the child alone or on the child and the family together. Early intervention programs may be center-based, home-based, hospital-based, or a combination. Services range from identification--that is, hospital or school screening and referral services--to diagnostic and direct intervention programs. Early intervention may begin at any time between birth and school age; however, there are many reasons for it to begin as early as possible.

Why Intervene Early?

There are three primary reasons for intervening early with an exceptional child: to enhance the child's development, to provide support and assistance to the family, and to maximize the child and family's benefit to society.

Child development research has established that the rate of human learning and development is most rapid in the preschool years. Timing of intervention becomes particularly important when a child runs the risk of missing an opportunity to learn during a state of maximum readiness. If the most teachable moments or stages of greatest readiness are not taken advantage of, a child may have difficulty learning a particular skill at a later time. Karnes and Lee (1978) have noted that "only through early identification and appropriate programming can children develop their potential" (p. 1).

Early intervention services also have a significant impact on the parents and siblings of an exceptional infant or young child. The family of a young exceptional child often feels disappointment, social isolation, added stress, frustration, and helplessness. The compounded stress of the presence of an exceptional child may affect the family's well-being and interfere with the child's development.

Families of handicapped children are found to experience increased instances of divorce and suicide, and the handicapped child is more likely to be abused than is a nonhandicapped child. Early intervention can result in parents having improved attitudes about themselves and their child, improved information and skills for teaching their child, and more release time for leisure and employment. Parents of gifted preschoolers also need early services so that they may better provide the supportive and nourishing environment needed by the child.

A third reason for intervening early is that society will reap maximum benefits. The child's increased developmental and educational gains and decreased dependence upon social institutions, the family's increased ability to cope with the presence of an exceptional child, and perhaps the child's increased eligibility for employment, all provide economic as well as social benefits.

Is Early Intervention Really Effective?

After nearly 50 years of research, there is evidence--both quantitative (data-based) and qualitative (reports of parents and teachers)--that early intervention increases the developmental and educational gains for the child, improves the functioning of the family, and reaps long-term benefits for society. Early intervention has been shown to result in the child: (a) needing fewer special education and other habilitative services later in life; (b) being retained in grade less often; and (c) in some cases being indistinguishable from nonhandicapped classmates years after intervention.

Disadvantaged and gifted preschool-aged children benefit from early intervention as well. Longitudinal data on disadvantaged children who had participated in the Ypsilanti Perry Preschool Project showed that they had maintained significant gains at age 19 (Berrueta-Clement, Schweinhart, Barnett, Epstein, Weikart, 1984). These children were more committed to schooling and more of them finished high school and went on to postsecondary programs and employment than children who did not attend preschool. They scored higher on reading, arithmetic, and language achievement tests at all grade levels; showed a 50% reduction in the need for special education services through the end of high school; and showed fewer anti-social or delinquent behaviors outside of school. Karnes (1983) asserts that underachievement in the gifted child may be prevented by early identification and appropriate programming.

Is Early Intervention Cost Effective?

The available data emphasize the long-term cost effectiveness of early intervention. The highly specialized, comprehensive services necessary to produce the desired developmental gains are often, on a short-term basis, more costly than traditional school-aged service delivery models. However, there are significant examples of long-term cost savings that result from such early intervention programs.

A longitudinal study of children who had participated in the Perry Preschool Project (Schweinhart and Weikart, 1980) found that when schools invest about \$3,000 for 1 year of preschool education for a child, they immediately begin to recover their investment through savings in special education services. Benefits included \$668 from the mother's released time while the child attended preschool; \$3,353 saved by the public schools because children with preschool education had fewer years in grades; and \$10,798 in projected lifetime earnings for the child.

Wood (1981) calculated the total cumulative costs to age 18 of special education services to child beginning intervention at: (a) birth ; (b) age 2; (c) age 6; and (d) at age 6 with no eventual movement to regular education. She found that the total costs were actually less if begun at birth! Total cost of special services begun at birth was \$37,273 and total cost if begun at age 6 was between \$46,816 and \$53,340. The cost is less when intervention is earlier because of the remediation and prevention of developmental problems which would have required special services later in life.

A 3-year follow-up in Tennessee showed that for every dollar spent on early treatment, \$7.00 in savings were realized within 36 months. This savings resulted from deferral or special class placement and institutionalization of severe behavior disordered children (Snider, Sullivan, and Manning, 1974).

A recent evaluation of Colorado's state-wide early intervention services reports a cost savings of \$4.00 for every dollar spent within a 3-year period (McNulty, Smith, and Soper, 1983).

Are There Critical Features To Include In Early Intervention?

While there have been too few attempts to determine critical features of effective early intervention programs, there are a few factors which are present in most studies that report the greatest effectiveness. These program features include: (a) the age of the child at the time of intervention; (b) parent involvement; and (c) the intensity and/or the amount of structure of the program model.

Many studies and literature reviews report that the earlier the intervention, the more effective it is. With intervention at birth or soon after the diagnosis of a disability or high risk factors, the developmental gains are greater and the likelihood of developing problems is reduced (Cooper, 1981; Garland, Stone, Swanson, and Woodruff, 1981; Maisto and German, 1979; Strain, Young, and Horowitz, 1981).

The involvement of parents in their child's treatment is also important. The data show that parents of both handicapped and gifted preschool-aged children need the support and skills necessary to cope with their child's special needs. Outcomes of family intervention include: (a) the parent's ability to implement the child's program at home; and (b) reduced stress that facilitates the health of the family. Both of these factors appear to play an important role in the success of

the program with the child (Beckman-Bell, 1981; Cooper, 1981; Garland and others, 1981; Karnes, 1983; Lovaas and Koegel, 1973; Shonkoff and Hauser-Cram, 1987).

Certain "structural" features are also related to the effectiveness of early intervention, regardless of the curriculum model employed. Successful programs are reported to be more highly structured than less successful ones (Shonkoff and Hauser-Cram, 1987; Strain and Odom, in press). That is, maximum benefits are reported in programs that: (a) clearly specify and frequently monitor child and family behavior objectives; (b) precisely identify teacher behaviors and activities that are to be used in each lesson; (c) utilize task analysis procedures; and (d) regularly use child assessment and progress data to modify instruction.

In addition to structure, the intensity of the services, particularly for severely disordered children, appears to affect outcomes. Individualizing instruction and services to meet child needs also is reported to increase effectiveness. This does not necessarily mean one-to-one instruction. Rather, group activities are structured to reflect the instructional needs of each child.

For More Information

Beckman-Bell, P. "Needs of Parents with Developmentally Disabled Children." In A National Review Project Of Child Development Services: A State-Of-The-Art Series, edited by R. Wiegertink and J. M. Bartel. Chapel Hill, NC: University of North Carolina, Frank Porter Graham Child Development Center, 1981.

Berrueta-Clement, J. R., and others. Changed Lives: The Effects Of The Perry Preschool Project On Youths Through Age 19. Ypsilanti, MI: High/Scope Educational Research Foundation, 1984.

Cooper, J. H. An Early Childhood Special Education Primer. Chapel Hill, NC: Technical Assistance Development System (TADS), 1981.

Garland, C., N. W. Stone, J. Swanson, and G. Woodruff, eds. Early Intervention For Children With Special Needs And Their Families: Findings And Recommendations. Westar Series Paper No. 11. Seattle, WA: University of Washington, 1981. ED 207 278.

Karnes, M. B., ed. The Undeserved: Our Young Gifted Children. Reston, VA: The Council for Exceptional Children, 1983.

Karnes, M. B., and R. C. Lee. Early Childhood. Reston, VA: The Council for Exceptional Children.

- Lovaas, O. I. and R. L. Koegel "Behavior Modification with Autistic Children." In M. C. Thoresen ed., Behavior Modification In Education. Chicago: University of Chicago Press, 1973.
- Maisto, A. A., and M. L. German. "Variables Related to Progress in a Parent-Infant Training Program for High-Risk Infants." Journal Of Pediatric Psychology 4 (1979): 409-419.
- McNulty, B., D. B. Smith, and E. W. Soper. Effectiveness Of Early Special Education For Handicapped Children. Colorado Department of Education, 1983.
- Schweinhart, L. J., and D. P. Weikart. Young Children Grow UP: The Effects Of The Perry Preschool Program On Youths Through Age 19. Ypsilanti, MI: High/Scope Educational Research Foundation. 1980.
- Shonkoff, J. P. and P. Hauser-Cram. "Early Intervention for Disabled Infants and Their Families: A Quantitative Analysis." Pediatrics 80 (1987): 650-658.
- Snider, J., W. Sullivan, and D. Manning. "Industrial Engineering Participation in a Special Education Program." Tennessee Engineer 1 (1974): 21-23.
- Strain, P. S., and S. Odom. "Innovations in the Education of Preschool Children with Severe Handicaps." In R. H. Horner, L. M. Voeltz, and H. B. Fredericks, eds., Education Of Learners With Severe Handicaps: Exemplary Service Strategies. (In press).
- Strain, P. S., C. C. Young, and J. Horowitz. "Generalized Behavior Change During Oppositional Child Training: An Examination of Child and Family Demographic Variables." Behavior Modification 1 (1981): 15-26.
- Wood, M. E. "Costs of Intervention Programs." In C. Garland and others, eds., Early Intervention For Children With Special Needs And Their Families: Findings And Recommendations. Westar Series Paper No. 11. Seattle, WA: University of Washington, 1981. ED 207 278.

Credits

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OJJDP FACT SHEET

Shay Bilchik, Administrator February 1999 #94

Costs and Benefits of Early Childhood Intervention

by Peter W. Greenwood, Ph.D.

In recent years, there has been renewed interest in the influence of early childhood—particularly, the first 3 years of life—on health and development, educational attainment, and economic well-being. Contributing to this interest are research findings indicating that most physical development in the brain occurs by age 3. A recent RAND report, *Investing in Our Children: What We Know and Don't Know About the Costs and Benefits of Early Childhood Interventions*, assembles available evidence on two questions of interest to policymakers, who must allocate resources, and to taxpayers, who provide those resources:

- ◆ Do early interventions targeted at disadvantaged children benefit participating children and their families? After critically reviewing the literature and discounting claims that are not rigorously demonstrated, the report concludes that these programs can provide significant benefits.
- ◆ Might government funds invested early in the lives of children yield compensating decreases in government expenditures? The report examines the possibility that early interventions may save some children and their parents from incurring State expenditures through criminal justice, welfare, and other costs. Updating and refining earlier estimates, the report concludes that, at least for some disadvantaged children and their families, decreased government expenditures might result from early childhood intervention.

The report uses words like “can” and “might” deliberately and does not generalize its conclusions to all types of targeted early interventions—in particular, large-scale programs. It notes limitations in the evidence collected to date that suggest that enhanced evaluations of intervention efforts would be of value to future decisionmaking.

Benefits

The report supports the conclusion that, in some situations, carefully targeted early childhood interventions can yield measurable benefits and that some of those benefits endure for some time after the program has ended.

The report bases this conclusion on a review of nine programs on which evaluations were performed that assessed developmental indicators, educational achievement, economic well-being, and health for program participants and compared the results with a matched control group. In most programs, children in the control group were randomly assigned at program onset. The report includes programs with participant and control groups large enough at program implementation and followup to ensure unbiased results, although resource limitations did not always permit this. This Fact Sheet presents general results from the report and highlights specific outcomes from five of the nine programs.

The programs led to the following advantages for program participants relative to those in the control group:

- ◆ Increased emotional or cognitive development for the child, typically in the short run, or improved parent-child relationships.
- ◆ Improved educational processes and outcomes for the child.
- ◆ Enhanced economic self-sufficiency, initially for the parent and later for the child, through increased participation in the labor force, decreased participation in welfare, and higher incomes.
- ◆ Decreased criminal activity.
- ◆ Improved health-related indicators such as child abuse, maternal reproductive health, and substance abuse.

The Early Training Project, Perry Preschool, and the Infant Health and Development Project found IQ differences between program participants and control group members that approached or exceeded 10 points at the end of the program. The difference in rates of special education and grade retention at age 15 in Abecedarian project participants exceeded 20 percent. Participants in the Elmira, NY, Prenatal/Early Infancy Project (PEIP) experienced 33 percent fewer emergency room visits through age 4 than children in the control group, and their mothers were on welfare 33 percent less of the time. In the Perry Preschool

program, earnings at age 27 were 60 percent higher among program participants. The report concludes that there is strong evidence to support the proposition that at least some early interventions can benefit participating children and their mothers.

Savings

Are the benefits of targeted early intervention programs sufficient to justify their costs? For the Perry Preschool and the higher-risk families of the Elmira PEIP, best estimates of the savings accrued to government exceed the costs—\$25,000 versus \$12,000 for each family participating in the Perry program; \$24,000 versus \$6,000 for each higher-risk family participating in the Elmira program.

On the basis of research to date, some targeted early intervention programs have substantial favorable effects on child health and development, educational achievement, and economic well-being. When targeted to families who will benefit most, some of these programs have generated savings to the government that exceed program costs.

More To Learn

There is still much that we do not know about these programs—for example, why some programs work and others do not. The report concludes that we need to learn the following:

- ◆ Whether there are optimal program designs.
- ◆ How early interventions can best target those who would benefit most.
- ◆ Whether the model programs evaluated to date would generate the same benefits and savings if implemented on a larger scale.
- ◆ What the nature of the full range of benefits is.
- ◆ What the implications of the changing social safety net are.

For Further Information

To order a copy of *Investing in Our Children: What We Know and Don't Know About the Costs and Benefits of Early Childhood Interventions*, contact RAND Distribution Services, P.O. Box 2138, Santa Monica, CA 90407–2138; 310–451–7002 (telephone); 310–451–6915 (fax); order@rand.org (e-mail).

Peter W. Greenwood, Director, Criminal Justice Program, RAND, is a coauthor of the report described in this Fact Sheet.

The Office of Juvenile Justice and Delinquency Prevention is a component of the Office of Justice Programs, which also includes the Bureau of Justice Assistance, the Bureau of Justice Statistics, the National Institute of Justice, and the Office for Victims of Crime.

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